# **ACTI @ EVALITA 2023: Automatic Conspiracy Detection**

Giuseppe Russo ETH Zurich

russog@ethz.ch

## Niklas Stoehr ETH Zurich

nstoehr@ethz.ch

## **Manoel Horta Ribeiro** EPFL

m.hortaribeiro@epfl.ch

## 1 Task Description

The ACTI shared task proposes the automatic identification of conspiracy content in Italian language in Telegram. More specifically, it is organized according to two main subtasks:

- Subtask A: Conspiratorial Content Classification: a system must recognize if a telegram post is conspiratorial or not.
  - Conspiratorial: a text that either (i) expresses the belief that major events(e.g., covid) are manipulation created by powerful people to protect their interests or (ii) interpretation of events meant to contribute to strengthen the underlying narrative of the conspiracy theory.
  - Not Conspiratorial: a text that does not diffuse any kind of beliefs linked to conspiracy theory
- Subtask B: Conspiracy Category Classification: a system must discriminate to which conspiracy theory a post belongs to. In particular, we consider four possible conspiracy theories:
  - Covid-Conspiracy: It contains posts concerning vaccine production, 5G, and restrictions as a tool of control over people.
  - Qanon-Conspiracy: It contains posts regarding the Qanon-theory according to which a group of Satanic cannibalist sex abusers conspired against former U.S. President Donald Trump during his term in office. The members of this conspiracy has been directly linked to the assault of the Capitol Hill in Washington on January Six. Qanon is a worldwide movement very diffused in Europe (Germany, Italy and Spain mostly).

- Flat Earth-Conspiracy: It is a theory claiming that the earth is flat, and there is a great conspiracy organized by hidden powers who do not want to spread this information to maintain their power over people.
- Pro-Russia Conspiracy: It is a theory putting the Russia president Vladimir Putin as the only leader to free western countries from the hidden dictatorship in which they are.
- Other: Other categories of discussion related to conspiracy categories

## 2 Dataset Description

Our released dataset for **SUBTASK A** training is a csv file containing:

- id: It denotes a unique identifier of the post.
- text: It represents the text written in the post.
- **conspiratorial**: It is a label that is 1 if the text is conspiratorial and 0 otherwise.

The dataset for the second subtask is a csv file containing:

- id: It denotes a unique identifier of the post.
- **text**: It represents the text of a conspiratorial post.
- conspiratorial\_category: It is a label representing one of the four conspiracy theories indicated in the task description. In particular
  - 1. Other has label 0
  - 2. Covid-Conspiracy has label 1
  - 3. Qanon-Conspiracy has label 2
  - 4. Flat Earth-Conspiracy has label 3
  - 5. Pro-Russia-Conspiracy has label 4

#### 3 Submission Format

Results for both tasks should be submitted as **csv files**. Submitted runs must contain one result per line including the corresponding **id** field provided in the test sets. In particular for

- Subtask A: Conspiratorial Content Classification: The partecipants that should upload a csv file containing the id of the test set samples and the respective predicted label (1 for conspiratorial and 0 for not conspiratorial).
- Subtask B: Conspiracy Category Classification: The partecipants that should upload a csv file containing the id of the test set samples and the respective predicted label associated with the four conspiracy theories as discussed in the dataset description section.

Additionally, a sample submission for both subtasks will be provided. For each task we distinguish between **constrained** and **unconstrained** runs.

- Constrained run: teams must use only the provided training data from the task organizers
- Unconstrained run: teams are allowed to use additional data for training ,e.g., data in other languages.

**IMPORTANT:** Each team can submit up to three runs for each substask. This constrained might be removed in the near future and allow for a high number of possible submission.

#### 4 Evaluation

The evaluation will be performed according to the standard metrics known in literature (accuracy, precision, recall and F1-score). We will provide official ranking for Task A and for Task B, and two separate ranking for constrained and unconstrained runs. Systems will be evaluated using F1-score for both subtasks.

We will release the training and the test at the beginning of the competion. To avoid the risk of overfitting on the test set, the rows in the solution file are sampled into Public and Private rows. Hovewer, the partecipants will not know which lines are public or private. As a result, the leaderboard showing the current ranking (avaible during the entire competion) will use the F1-score on the public rows. We call this **Public Leaderboard**. While the

scores obtained on the private roese will be used to the determine the final ranking of the competions. We call this **Private Leaderboard** and the results will only made available at the very end of the competion.

Public rows will consist of roughly 30% of the test data while private rows constitutes the 70% of test data. Therefore, public and private scores may drastically change (for unstable submitted systems).

## 5 How to Participate and Submit

**Parecipate** to **Kaggle** Competition. ACTI be hosted on the website Therefore teams that desire to Kaggle. join ACTI must register on Kaggle at this https://www.kaggle.com/account/ login?phase=startRegisterTab& returnUrl=%2Fcompetitions. After completing the registration, partecipants should add their email in the following Google Form to receive the invitation to join the Zulip channel dedicated to all communications and discussions relative to the competion. On the zulip chat users will find the link to join the ACTI competition on Kaggle.

Submission to ACTI. Particapants should simply click on the invitation link provided on slack. This link will redirect them to a the kaggle webpage where parecipants can navigate to the tab **Data** to download the data for the competion and the tab **Submission Guidelines** where users after accepting a confidentiality agreement can submit their solution. After few seconds, partecipants will be able to see their score and their position on the public leader-board. Each submission should be named as **team-Name\_subtaskname\_runType\_runID** where

- **teamName** is the name of the team.
- subtaskName is either A or B
- **runType** is either constrained or unconstrained. Constrained should be indicated with the letter **c** while unconstrained with the letter **u**.
- runID represents a progressive identifier of your runs and could be "run1", "run2", "run3".